

REMARKS

In response to the Office Action of September 15, 2008, Applicants have amended claims 1, 6, and 17 and canceled claim 5. Claims 1-4, and 6-17 are presented for further examination. Favorable reconsideration is respectfully requested

Specification

According to the Office Action (page 2) "the title of the application is not descriptive" and "a new title is required that is clearly indicative of the invention to which the claims are directed." In this regard, Applicants have amended the title as shown above. Applicants respectfully request reconsideration and withdrawal of this objection in view of the amendments to the title.

Claim Rejections

Claims 1-17 were rejected as being anticipated by U.S. Patent No. 5,455,415 (Yamada). As shown above, Applicants have amended independent claim 1 to recite that the light modulator comprises a transparent block having a cavity from a side where the light enters the transparent block. In view of this amendment and the following remarks, withdrawal of the art rejections is respectfully requested.

Yamada describes an insolation sensor 31 that includes a rectangular glass substrate 34 and a light shading film 36 having a pin hole 35 as a light transmission means disposed at the center of surface side of the glass substrate 34.¹ A position detection element 37 for receiving a spot beam incident from the pin hole 35 and outputting an electrical signal corresponding to the

¹ See, e.g., Yamada at col. 5, lines 13-17.

light reception position and a light reception quantity is disposed on the back of the glass substrate 34.²

The Office Action (page 3) apparently equates the glass substrate 34 and the pin-hole 35 of Yamada, Fig. 1, to the transparent block and the cavity of Applicants' claim 5. However, Yamada's glass substrate 34 does not include a cavity as is required now by the amended claim 1. Even assuming, without conceding, that the pin-hole 35 could be equated with a cavity, the pin-hole 35 is located in the light shading film 36, not the glass substrate 34.³ The glass substrate 24, however, is a rectangular block without any pin-holes or cavities.

Nor would it have been obvious to modify Yamada's glass substrate 34 to include a cavity. In Yamada, a light ray passing through the pin-hole 35 is refracted by the glass substrate 34 such that it hits the position detection element 37 at a position $P(x,y)$.⁴ This position $P(x, y)$ is used to calculate the altitude of the incoming light beam as is described at col. 7, line 55 to col. 8 line 30. With reference to Yamada's FIG. 7, it would appear that the entire calculation is based on the assumption that the upper and lower surfaces of the glass substrate 34 are parallel to each other. Only in this case, the angle θ' between the refracted light beam and the position detection element 37 can be calculated from the refraction angle as described in col. 8, line 3.

If a cavity was introduced in Yamada's glass substrate 34, the upper and lower surfaces of the glass substrate 34 would no longer be parallel to each other, and, as a result, the direction of the incoming light beam could no longer be calculated by the equations given in col. 7, line 55 to col. 8, line 30. Thus, a person of ordinary skill in the art would have been dissuaded from

² See, e.g., id. at col. 5, lines 17-21.

³ See, e.g., id. at col. 5, lines 13-14; see also FIG. 1.

⁴ See, e.g., id. at col. 7, lines 25-30.

modifying Yamada's glass substrate 34 to include a cavity. Accordingly, claim 1 is believed to be patentable.

Independent claim 10 recites “[a] light modulator comprising a transparent block having a cavity formed in a side where the light enters the transparent block.” Accordingly, claim 10 is believed to be patentable for at least the same reasons as discussed above with regard to claim 1.

Each of the dependent claims is believed to define patentable features of the invention. Each dependent claim partakes of the novelty of its corresponding independent claim, in light of the foregoing amendments, and, as such, has not been discussed specifically herein.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

In view of the foregoing amendments and remarks, Applicants respectfully submit that the application is in condition for allowance, and such action is respectfully requested at the Examiner's earliest convenience.

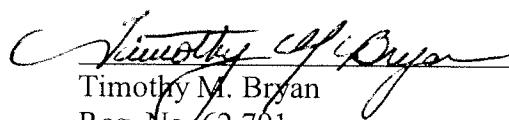
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Please charge any additional fees, not already covered by check, or credit any
overpayment, to deposit account 06-1050, referencing Attorney Docket No. 14219-0120US1.

Respectfully submitted,

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